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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/998,601

11/16/2001

Yukihiko Okumura

3815/144

6209

22913

7590

03/08/2006

WORKMAN NYDEGGER  
(F/K/A WORKMAN NYDEGGER & SEELEY)  
60 EAST SOUTH TEMPLE  
1000 EAGLE GATE TOWER  
SALT LAKE CITY, UT 84111

EXAMINER

WONG, WARNER

ART UNIT

PAPER NUMBER

2668

DATE MAILED: 03/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/998,601	<b>Applicant(s)</b> OKUMURA, YUKIHIKO	
	<b>Examiner</b> Warner Wong	<b>Art Unit</b> 2668	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 09 January 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,3-5,7-11 and 14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8 is/are allowed.
- 6) ☒ Claim(s) 1,4,5,11 and 14 is/are rejected.
- 7) ☒ Claim(s) 3,9 and 10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1, 4, 5, 11 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okumura (US 5,896,374) in view of Oliver (US 6,292,484).

**Regarding claim 1, 11, and 14,** Okumura describes a data transmission method/system with transceiver and receiver for placing variable non-zero length transmission data into fixed time length transmitting frames (col. 13, lines 37-40 & col. 14, lines 58-60), comprising:

At the transmitting side, the method/system calculates an error-detecting code of the transmission data in the frame, generates and transmits frame data containing transmission data and an error-detecting code (col. 13, lines 41-50).

At the receiving side, the method/system receives & determines the transmission data and error-detecting code by determining a predetermined end/final bit position of transmitted data where the length of transmission data length is X (col. 5, 26-37, where length 'X' is non-zero), calculates an error detecting code based on the (determined) transmission data, and decides whether or not the frame contains the correct transmission data or error, depending whether if the received error-detecting code

matches the error detecting code calculated based on determined transmission data (col. 15, lines 9-31).

Okumura lacks describing transmitting a frame of zero-length data and without a corresponding error-detecting code if the frame does not contain transmission data.

Oliver describes transmitting a frame of zero-length data and without a corresponding error-detecting code if the frame does not contain transmission data (fig. 13, where the frame format is shown, including length field in the header & CRC field after the payload, and col. 16, lines 35,59-61, where Oliver's system for providing low overhead data sets the length field to zero if no data exist, in which the frame is sent without a CRC).

It would have been obvious to one with ordinary skills in the art at the time of invention by applicant to describe a frame of zero-length data and without a corresponding error-detecting code as in Oliver to be sent by a transmitter to a receiver of Okumura.

The motivation for combining the teachings is that it advantageously minimizes overhead imposed on regular data when data is idle (empty) (Okumura, col. 16, lines 61-63).

**Regarding claim 4**, Okumura further describes the transmitting side conducting error-correcting coding to the transmitting frame and interleaving the frame afterwards, as well as the receiving side conducting de-interleaving of the receiving frame and error-correcting coding the frame afterwards (col. 13, lines 64-65; col. 14, lines 65-67; col. 15, lines 1-10).

**Regarding claim 5**, Okumura describes the transmitting side calculates the transmission rate information indicating the number of bits of the transmission data in each frame and generating frame data containing the calculated transmission rate information (col. 16, lines 11-13).

#### **Allowable Subject Matter**

2. Claim 8 is allowed. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record fails to teach and render ~~the~~ obvious *the* substeps of (i) calculating the error detecting code for each channel, (ii) deciding for each channel the final bit position for calculating and comparing the code and (iii) assuming final bit positions of the partial frame data.
3. Claims 3, 7 and 9-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### **Response to Arguments**

4. Applicant's arguments with respect to claims 1, 3-5, 11 and 14 have been considered but are moot in view of the new ground(s) of rejection.

#### **Conclusion**

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Warner Wong whose telephone number is 571-272-8197. The examiner can normally be reached on 5:30AM - 2:00PM, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Warner Wong  
Examiner  
Art Unit 2668

WW

  
RICKY Q. NGO  
SUPERVISORY PATENT EXAMINER